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New data on sponges from Svalbard Archipelago with a description of a new species of Halicnemia

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Abstract

© 2018 Informa UK Limited, trading as Taylor & Francis Group. Sponge fauna from the west and south of Svalbard archipelago was studied. A total of 28 species of sponges were identified. Five of them are new records to the study area and one is new to science. New records for Spitsbergen are: Axinella hispida (Koltun 1959), Haliclona rossica (Hentschel 1929), Myxilla (Myxilla) perspinosa (Lundbeck 1905), Sphaerotylus borealis (Swartschewsky 1906) and Suberites carnosus (Johnston 1842). A new species of sponge, Halicnemia wagini sp. nov., collected south-west of Spitsbergen on the continental slope at a depth of 423–425 m, is described. It is similar to Halicnemia patera (Bowerbank 1864) and H. verticillata (Bowerbank 1866) in skeleton architecture, but significantly differs in its spicule complement and external appearance. Primarily, distinct differences concern the morphology of microscleres. In comparison with Halicnemia patera, the new species has an additional category of acanthose microscleres presented by microstrongyles, while microscleres of H. verticillata are only slightly curved and also verticillately spined. The study area, west of Spitsbergen, establishes close relationships with North Atlantic due to warm Atlantic waters of the West Spitsbergen Current. Proximity of the new species to the North Atlantic representatives of Halicnemia genus allowed us to suggest that H. wagini sp. nov., both ecologically and morphologically, has stood apart as a distinct biological species in the conditions of the Arctic. http://www.zoobank.org/lsid:zoobank.org:pub:2A09537B-63D7-4F07-A2AB-9C707A686333.

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Keywords

Arctic, Halicnemia, new species, Porifera, Stelligeridae, Svalbard Archipelago

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